

EFFECTS OF ASCORBIC ACID ON PHENOLIC COMPOUNDS AND ANTIOXIDANT ACTIVITY OF PACKAGED FRESH CUT TABLE GRAPES

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ABSTRACT:

The change in packaged fresh-cut grapes quality that prepared by two different methods and treated by ascorbic acid (AA) was evaluated. Each individual berry was either manually pulled off (stemless) from the stems, or cut (cut stem) to allow for 4-berry together remaining on the stem. Thereafter, berries were treated by 2% AA. After drying, were packaged in rigid trays and stored at 5°C for 14 days. General berry quality (cracking, decay percentage and acceptability), weight loss, total soluble solids (TSS), titratable acidity (TA), TSS/TA, pH, total phenolics, phenolic composition (quercetin and catechin) and antioxidant activity (%DPPHsc) were evaluated periodically with 7 days intervals. The results showed that 4-berry cutting maintained its quality better than 1-berry cutting ($P < 0.01$). AA pretreatment induced significantly total phenolics content, antioxidant capacity, quercetin and catechin content in both 1- and 4-berry cutting. Berry weight loss, TSS, pH, TA, and TSS/TA didn't significantly affect.